

CLAIMS

What is claimed is:

1. A method for manufacturing a canal instrument having a working cross-section comprising three flutes forming three cutting lips, wherein the three flutes have an "S" shape, and wherein the three cutting lips are located on the working cross-section at positions corresponding to vertices of an isosceles triangle, the method comprising the steps of:

grinding first and second flutes in a generally cylindrical blank during first and second machining operations, wherein the first and second machining operations are identical and successive machining operations performed at locations on the blank which are separated by an angle of 120° , and thereafter grinding a third flute in the cylindrical blank by performing a third machining operation, wherein the first and second machining operations are performed at a first depth, and wherein the third machining operation is performed at a second depth which is greater than the first depth.

2. The method of claim 1 wherein the third machining operation is initially performed at the second depth, at a tip of the working cross-section of the canal instrument, and thereafter performed at a depth which becomes identical to the first depth.

3. The method of claim 1 which further includes the step of rotating the blank during the grinding.

4. The method of claim 1 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of inclining the grinding wheel relative to the longitudinal axis of the blank.

5. The method of claim 1 wherein the canal instrument has a working part with a substantially conical shape which tapers to a tip, wherein the flutes define a spiral having a pitch, and wherein the method further includes the step of varying the pitch of the spiral during the first, second and third machining operations so that the pitch increases with increased distance from the tip of the canal instrument.

6. The method of claim 5 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of withdrawing the grinding wheel relative to the longitudinal axis of the blank.

7. A canal instrument produced according to the method of claim 6.

8. A canal instrument produced according to the method of claim 1.

9. A method for manufacturing a canal instrument having a working cross-section comprising three flutes forming three cutting lips, wherein the three flutes have an "S" shape, and wherein the three cutting lips are located on the working cross-section at positions corresponding to vertices of an isosceles triangle, the method comprising the steps of:

grinding first and second flutes in a generally cylindrical blank during first and second machining operations, wherein the first and second machining operations are identical and successive machining operations performed at locations on the blank which are separated by an angle greater than 120°, and thereafter grinding a third flute in the cylindrical blank by performing a third machining operation which complements the first and second machining operations to locate the three cutting lips on the working cross-section at the positions which correspond to the vertices of the isosceles triangle.

10. The method of claim 9 which further includes the step of rotating the blank during the grinding.

11. The method of claim 9 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of

inclining the grinding wheel relative to the longitudinal axis of the blank.

12. The method of claim 9 wherein the canal instrument has a working part with a substantially conical shape which tapers to a tip, wherein the flutes define a spiral having a pitch, and wherein the method further includes the step of varying the pitch of the spiral during the first, second and third machining operations so that the pitch increases with increased distance from the tip of the canal instrument.

13. The method of claim 12 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of withdrawing the grinding wheel relative to the longitudinal axis of the blank.

14. A canal instrument produced according to the method of claim 13.

15. A canal instrument produced according to the method of claim 9.

16. A method for manufacturing a canal instrument having a working cross-section comprising three flutes forming three cutting lips, wherein the three flutes have an "S" shape,

and wherein the three cutting lips are located on the working cross-section at positions corresponding to vertices of an isosceles triangle, the method comprising the steps of:

grinding first and second flutes in a generally cylindrical blank during first and second machining operations, wherein the first and second machining operations are identical and successive machining operations performed at locations on the blank which are separated by an angle less than 120° , and thereafter grinding a third flute in the cylindrical blank by performing a third machining operation which complements the first and second machining operations to locate the three cutting lips on the working cross-section at the positions which correspond to the vertices of the isosceles triangle.

17. The method of claim 16 which further includes the step of rotating the blank during the grinding.

18. The method of claim 16 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of inclining the grinding wheel relative to the longitudinal axis of the blank.

19. The method of claim 16 wherein the canal instrument has a working part with a substantially conical shape which tapers to a tip, wherein the flutes define a spiral having

a pitch, and wherein the method further includes the step of varying the pitch of the spiral during the first, second and third machining operations so that the pitch increases with increased distance from the tip of the canal instrument.

20. The method of claim 19 wherein the grinding is performed with a grinding wheel, wherein the blank defines a longitudinal axis, and which further includes the step of withdrawing the grinding wheel relative to the longitudinal axis of the blank.

21. A canal instrument produced according to the method of claim 20.

22. A canal instrument produced according to the method of claim 16.